

MEMORANDUM

To: ALL CONSTRUCTION SENIORS AND ABOVE
ALL RESIDENT ENGINEERS

Date: April 22, 2002

From: DEPARTMENT OF TRANSPORTATION
Division of Construction – MS 44

File: Division of Construction
CPD 02-05

Subject: Traffic Signal and Lighting Poles

The purpose of this memorandum is to describe the administrative procedure for the acceptance of traffic signal and lighting poles manufactured by Valmont Industries Inc. This procedure shall become effective immediately.

The Division of Engineering Services, Office of Materials and Engineering Testing Services (METS), has determined that the traffic signal and lighting poles, manufactured by Valmont Industries Inc. (Valmont) in Valley, Nebraska, are not in conformance with Section 86-2.04, "Standards, Steel Pedestal, and Posts," of the Standard Specifications. Specifically, the traffic signal and lighting poles have failed to meet the requirements of California Test 664 ("Crush Test").

Valmont met with the Department of Transportation (Department) to propose an alternative method of acceptance for their traffic signal and lighting poles. Valmont's alternative method of acceptance is based upon a full-scale, "Fit for Purpose" load test. This "Fit for Purpose" load test primarily determines the yield strength of the longitudinal seam weld. Individual "Fit for Purpose" load tests have been performed on various cross sections of the traffic signal and lighting poles. These tests were performed with the longitudinal seam weld placed on the tension side, compression side, and along the neutral axis. The "Fit for Purpose" load tests were witnessed by a representative of METS at Valmont's facility in Valley, Nebraska.

Upon reviewing the lab results from the "Fit for Purpose" load tests, METS has determined that the longitudinal seam weld performed adequately. All failures to the traffic signal and lighting poles occurred due to buckling, and the buckling occurred when the test loads exceeded the design load. In no case was there visible damage to the longitudinal seam weld.

Based on the recommendation from METS, the Division of Construction is advising all Districts to accept the "Fit for Purpose" load testing, in lieu of California Test 664. The acceptance of this test method should be through a contractor requested change order. The contractor requested change order should provide a lump sum credit to the State, in the amount of 5% of the invoiced material costs. A sample contract change order and memorandum are attached for your reference.

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METS will continue performing "Fit for Purpose" load tests on traffic signal and lighting poles at a minimum frequency of one pole out of every 100 manufactured for the Department. All testing will continue to be performed and witnessed by METS at Valmont's facility in Valley, Nebraska.

If you have any questions regarding this process, please call your Division of Construction Coordinator.

A handwritten signature in black ink, appearing to read "Robert Pieplow". The signature is fluid and cursive, with a large initial "R" and a stylized "P".

ROBERT PIELOW

Chief

Division of Construction

Attachments

cc: Scott Jarvis
Contract Reviewers
Construction Coordinators